

REMARKS/ARGUMENTS

Status of Claims

Claims 1-39 are pending in this application, and claims 9-12 and 22-36 have been withdrawn from consideration. Claims 1-8, 13, 15-21, and 37-38 have been rejected. Claims 14 and 39 have been objected to, but have also been designated as allowable.

Election/Restriction Requirements

Another attorney was involved in earlier communications with the Patent Office. However, the undersigned acknowledges the species election and election of claims, pursuant to a Restriction Requirement.

Rejections Under 35 U.S.C. 112

Claims 13 and 21 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In regard to claim 13, there was no antecedent basis for "substrate". The undersigned acknowledges this omission, and the claim has been amended. The original concept of the claim still represents part of the invention, i.e., a coating composition in which the amount of aluminum is specified relative to the composition of the substrate. However, this specific claim now recites an exemplary amount of aluminum for some embodiments, independent of a substrate on which the coating is typically disposed. The range of aluminum was described in paragraph 21 of the specification, so no new matter is involved here.

In regard to claim 21, Applicant respectfully disagrees with the Examiner's determination that the claim is indefinite. As the Examiner agrees, there is support for the substrate term, i.e., the surface region of the component. Moreover, the aluminum content of the coating composition is a definite quantity, relative to the substrate.

The undersigned has briefly reviewed some of the case law cited by the Examiner on page 3 of the Office Action. Applicant disagrees somewhat with the apparent

conclusion proffered through those references, i.e., that the preamble "...is assessed little or no patentable weight...". In fact, the preamble can be used to recite structural limitations of a claimed invention in some circumstances, and the Patent Office and various courts-of-law support those types of limitations in claims. In this instance, the recitation of the "substrate" (whether in the body of the claim or the preamble) would appear to provide a sufficient parameter to define aluminum content. Thus, while the claim has been amended to remove this rejection and reduce issues in prosecution, Applicant still maintains that the original concept of the claim, regarding aluminum levels, is still a part of the overall inventive concept.

Double Patenting Rejection

Claims 1, 2, 6-8, 13-19, 31 and 37 have been provisionally rejected under the judicially-created doctrine of obviousness-type double patenting, in view of co-pending Application No. 10/836,001 (Lawrence Kool). It is the Examiner's position that the present claims are not identical to those in the reference, but they are patentably indistinct. The Examiner emphasizes the "comprising" term in the pending claims, apparently to support the notion that the open-ended term results in significant overlap with the reference. (The undersigned invites comment from the Examiner if this inference regarding the Examiner's position is inaccurate).

The '001 Application ("Kool") describes an aluminizing composition which includes an aluminum-based powder; a binder in the form of colloidal silica or an organic resin; and an inert pyrolysable thickener. As described in the specification of Kool, (e.g., paragraph 18), some preferred embodiments call for the composition to be used to aluminize the internal passages of metal substrates, e.g., turbine components, as mentioned in paragraph 12.

There certainly is some considerable overlap between the present Application and the Kool reference. (Applicant has reviewed the Examiner's comparison of various claims and claim sets, on page 5 of the Office Action; and this analysis is appreciated). However, there are significant differences between the two disclosures as well. For example, Kool specifically requires the presence of a binder, as recited in claim 1. The reference also requires the presence of a pyrolysable thickener. This material is often in

the form of polymeric microbeads (e.g., claims 4-5).

The Kool reference and the claims of the present Application appear to be patentably distinct. However, Applicant also notes that the references were owned by the same entity at the time the present invention was made. Thus, the reference can now be disqualified as prior art. If deemed necessary, Applicant would be willing to submit an appropriate terminal disclaimer, e.g., effecting a simultaneous expiration date for the prospective Kool patent and that which would issue from this case. The undersigned would suggest that such a disclaimer and supporting documentation be held in abeyance until the resolution of the other art rejections in this case. However, he would be very willing to discuss this issue with the Examiner, prior to that time.

Rejections Under 35 U.S.C. 102

Claims 1-5, 15-17, and 19-21 have been rejected under 35 U.S.C. 102(b), as being anticipated by Sugimoto et al, U.S. Patent 5,322,864 ("Sugimoto"). Sugimoto describes an epoxy resin composition which contains (a) a low-viscosity epoxy resin; (b) a liquid curing agent; and (c) a metal powder. The metal powder can be made of materials such as aluminum, copper, iron, nickel, or chromium. The composition can also include inorganic fillers and various other additives (col. 5, lines 28-43).

In regard to some of the discussion above, Applicant first notes that the preamble in this instance has considerable significance in defining the scope of the invention. The present claims relate to an aluminizing composition, e.g., a coating or paint which can be sprayed, dipped, brush-painted, etc, onto the surface (See, e.g., paragraphs 47 and 48). In marked contrast, Sugimoto describes a curable epoxy resin composition in the form of a moldable article, e.g., see col. 2, lines 5-10. Sugimoto has nothing to do with a coating material for an article – Sugimoto's invention is primarily the article itself. (See also col. 1, lines 9-16). While the compositions described in Sugimoto have some components which might be considered as similar to some of those in the present invention, the reference has nothing to do with aluminizing compositions which are applied to metal substrates, e.g., superalloy components. The reference also does not suggest the problem of metal substrates being deficient in aluminum content.

Claims 1-7, 16-17, 19-21 and 37-38 have been rejected under 35 U.S.C. 102(b), as being anticipated by Geeck, U.S. Patent 4,748,194. Geeck describes corrosion-resistant coatings which can be applied to a metal substrate. The coatings can contain a powdered metal such as zinc, cadmium, stainless steel, aluminum, and alloys and blends thereof (e.g., col. 2, lines 27-40). An epoxy or phenoxy resin is also present in the composition as a bonding material. As the Examiner indicates, the reference also includes mention of suspending agents and other additives.

As in the case of Sugimoto, Geeck contains some components which may be considered similar to those in the pending claims. However, the reference is restricted to corrosion coatings which rely on the presence of very specific types of epoxy resins. (See, for example, col. 2, lines 44 to 51, re the use of linear epoxy resins with molecular weights of less than 15,000, and free of reactive epoxy groups). Moreover, Geeck has nothing to do with aluminizing compositions which are applied to superalloy components. The patent also does not suggest the problem of metal substrates (e.g., turbine components) which are deficient in aluminum content.

Claims 1-2, 4-8, and 16-20 have been rejected under 35 U.S.C. 102(b), as being anticipated by Lutz et al, U.S. Patent 5,011,627 ("Lutz"). The patent describes screen-printable pastes formed of an electrically-conductive metal powder based on silver, aluminum, copper, and various mixtures thereof (col. 2, lines 19-42). The compositions also include a synthetic organic resin, and various additives which are listed in column 3, lines 28-32.

As in the case of Sugimoto, Lutz is primarily directed to the manufacture of articles, e.g., membrane switch elements and keyboards (Abstract, and col. 3, lines 55-62). While the compositions of Lutz contain some ingredients which are similar to those of the present invention, the reference has nothing to do with aluminizing compositions which are applied to substrates to replenish depleted aluminum. Moreover, Lutz contains no recognition of the problem of metal substrates (e.g., turbine parts) which are deficient in aluminum content.

Allowable Subject Matter

132497-1

Appl. No. 10/633,887

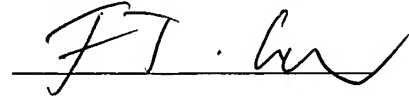
Reply to Office Action of July 28, 2005

Applicant acknowledges and appreciates the indication that claims 14 and 39 would be allowable, once their claim structure is modified. However, Applicant also believes that many more of the pending claims are distinguishable over the references. Thus, changes to claims 14 and 39 will not be undertaken until some of the other substantive issues are resolved.

Conclusion

Applicant respectfully submits that all of the pending claims are now in allowable condition. Should the Examiner believe that anything further is needed to eliminate any remaining issues, the undersigned would welcome a call from the Examiner. The contact information is provided below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'FT. Coppa', written over a horizontal line.

Francis T. Coppa
Reg. No. 31,154

General Electric Company
Building K1, Room 3A67
Schenectady, New York 12301
October 21, 2005
Telephone: (518) 387-7530